UNIVERSITY OF REGINA
Department of Computer Science

CS 455 – Mobile Computing
Winter 2013

Instructor: **Dr. Orland Hoeber**
Lectures: **T/Th 11:30 AM – 12:45 PM (CL 313)**
Webpage: **http://www.cs.uregina.ca/~hoeber/teaching/cs455/**
Email: **orland.hoeber@uregina.ca**

Office Hours: **M/W/F 9:00 AM – 11:00 AM (other times by appointment only)**
Office: **CW 308.25**
Phone: **306–585–4598**

Course Prerequisites

CS 340 and one of CS 205, CS 315, or CS 335

Calendar Description

Mobile Computing focuses on the design and implementation of software in a networked mobile environment. The primary topics to be covered in the course include software development practices, network computing, graphics programming, and human–computer interaction, all focused on the challenges and opportunities afforded by modern mobile computing devices.

Hardware and Lab

This particular offering of the course will use the iPhone/iPod Touch/iPad as the particular mobile platform. All programming tasks for the assignments and project will be done in Objective-C and will be written for iOS 8. This mobile platform will allow us to take advantage of advanced sensors, networking, graphics, and multi-touch interaction. A small number of iPod Touch devices will be available on a sign-out basis for testing of assignments and project work.

Since the software development kit will only run on a Mac OS X platform, a shared laboratory (UDML – CL 135) will be available for students to use who do not have access to a personal Mac computer.

Textbook

Readings from the iOS Developer Library
        https://developer.apple.com/library/ios/navigation/

Evaluation

The final grade in the course will be determined as follows:

Assignments	4 x 10%	40%
Group Milestone–Based Project	5/5/5/20%	35%
Final Exam	(Apr 21)	25%
Total		**100%**

* In order to pass the course, you must pass the final exam. Your final mark may be adjusted by +/– 5%, at the instructor's discretion.

Course Schedule & Topics (Tentative)

Topic	Date	Topics
1	January 6/8	• Fundamentals of Objective–C
2	January 13/15	• Anatomy of an iOS Project • **Project Milestone 1 (Jan 15)**
3	January 20/22	• Cocoa Fundamentals • **Assignment 1 (Jan 22)**
4	January 27/29	• Views and Layers
5	February 3/5	• Touches • **Project Milestone 2 (Feb 5)**
6	February 10/12	• Advanced Views • **Assignment 2 (Feb 12)**
		• Midterm Break
7	February 24/26	• Graphics and Drawing
8	March 3/5	• Animation • **Project Milestone 3 (Mar 5)**
9	March 10/12	• Basic Networking • **Assignment 3 (Mar 12)**
10	March 17/19	• Network Programming
11	March 24/26	• Sensor Programming
12	March 31/April 2	• Mobile Devices & The User Experience • **Assignment 4 (Apr 2)**
13	April 7/9	• Research Topics in Mobile Computing • Demos • Review • **Project Milestone 4 (Apr 9)**

The **Final Exam** has been scheduled for April 21 from 2:00 – 5:00 PM. The exam will be comprehensive, covering the entire breadth of topics covered in the course.

Lectures and Lecture Notes

Lectures will be held twice per week: T/Th 11:30 AM – 12:45 PM. All lecture notes and assignments will be posted on UR Courses. The lecture notes should not be used as an alternative to attending the lectures. It is expected that students will attend the lectures, listen to the explanations and discussions, and take notes about the important information.

Assignments & Project

All assignments and project milestones are due prior to the beginning of the class on the specified dates, and must be submitted electronically via UR Courses. Late submissions will not be accepted, but the grades for missing assignments may be moved to the final exam under exceptional circumstances, and with appropriate documentation.

Grades

All grades will be assigned according to the Undergraduate Calendar, Section 5.9: Grading System and Descriptions:

> 90–100: An outstanding performance.
> 80–89: Very good performance.
> 70–79: Above average performance.
> 60–69: A generally satisfactory and intellectually adequate performance.
> 50–59: A barely acceptable performance.
> 0–49: An unacceptable performance.

Other Notes and Information

1. The best way to contact me is via email.
2. You should send class-related email using your University of Regina account only. This will ensure that spam filtering does not keep your email from getting to me.
3. You should check UR Courses and your University email on a regular basis. Important announcements for this class will be made on UR Courses. Other announcements and direct communication will be via email.
4. Students are expected to attend the lectures. If you must skip a lecture, it is your responsibility to find out from classmates what you missed.
5. Although group discussions and study groups are encouraged, all assignments are to be completed individually. Group discussions should be focused on general concepts, ideas, and lecture materials, and not the specifics of any assignment.
6. Group work is permitted in the project, but must be limited to include only those in your documented group.

7. Plagiarism and other forms of academic misconduct will not be tolerated. It is up to each student to understand the rules and regulations pertaining to this (Section 5.13 in the Undergraduate Calendar). Be aware that not only is the act of copying the work of another considered plagiarism, so is the act of allowing another to copy your work.